Ardusa

A Grammar of the Ardusan Languages

by Ian A. Cook

last edited
November 28, 2018

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Ardusa is a fictional landmass set in a fictional constructed world. All of the languages spoken on Ardusa, such as Tavonic, Alnuric, Redodhic, and others, are themselves fictional, spoken by fictional groups of people, and as such are not related to any naturally existing languages. These languages' vocabularies are entirely *a priori*, which means that no words are derived from the vocabularies of real-world languages. That being said, these languages are intended to be naturalistic, so similarities will occur. Nonetheless, any actual duplication is accidental.

No website yet
https://github.com/nai888/ardusa

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Abbreviations

1p	first person plural
1pc	first person paucal
1s	first person singular
2p	second person plural
2pc	second person paucal
3p	third person plural
3pc	third person paucal
3s	third person singular
ABS	absolutive
ACC	accusative
ACT	active
AN	animate
DAT	dative
DIM	diminutive
ERG	ergative
GEN	genitive
IMP	imperative
IN	inanimate
IND	indicative
INF	infinitive
INT	interrogative
IPFV	imperfective
MED	medial
NEG	negative
NMZ	nominalizer
NPST	nonpast
PASS	passive
PC	paucal
PFV	perfective
PL	plural
PRG	progressive
PST	past
PTCP	participle
RTSP	retrospective
SBJV	subjunctive
SG	singular
TOP	topic

*	ungrammatical
?	grammatically questionable
!	semantically odd or ill-formed

Acknowledgments

Given that I have not taken any official linguistics coursework, this work would not be possible without several sources of linguistic education. Mark Rosenfelder's *The Language Construction Kit* and *Advanced Language Construction Kit* were important to my first starting out in the world of language construction, with further knowledge gained from David J. Peterson's *The Art of Language Invention*. Of course, I received an unmeasurable amount of education via several online sources, especially the articles available on Wikipedia. Yet more education, as well as inspiration and motivation, have come from the *Conlangery* podcast and all its hosts and guests. Lexicon generation received guidance from Mark Rosenfelder's *The Conlanger's Lexipedia* and William S. Annis' *A Conlanger's Thesaurus*.

Finally, this document's format, layout, and organization have been influenced by several sources, particularly Thomas E. Payne's *Describing Morphosyntax*, Carsten Becker's *A Grammar of Ayeri*, and Matt Pearson's *The Okuna Reference Grammar*.

Preface

This document provides a detailed grammatical description of the languages of Ardusa, a fictional landmass set in a fictional constructed world. This project serves as a method for linguistic research, as an intellectual exercise, as an outlet for creative and artistic expression, and as a setting for potential future works of fiction. It is intended primarily for my own personal use and entertainment, though others with similar linguistic interests will hopefully find it interesting and entertaining as well. I have chosen to use LaTeX to typeset this grammar because it provides a way to be clear, consistent, and organized. Further, since LaTeX uses plain text files, it allows me to use Git for version control so I can keep track of changes over time.

My goal is to build a series of languages with naturalistic grammars that are linguistically plausible and consistent, yet also original in their content and details. This project consists of three distinct and unrelated language families, each of which contains one or more related languages. Some elements of these languages are influenced by existing languages such as Japanese, Finnish, Navajo, Nahuatl, and Arabic, but they are not meant to simply mimic these, instead drawing this inspiration into new forms along with entirely *a priori* lexicons. Ardusa and the Ardusan languages is an ongoing project with no fixed endpoint or goal.

This concise grammar is my attempt to document the Ardusan languages in an official and systematic way, and as comprehensively as possible. It is intended to be the official description of the languages. This is a concise grammar because, admittedly, I am not a professional linguist, nor have I taken any linguistics coursework. My education in linguistics consists solely of self-guided research, which means invariably my knowledge will be limited. It is a concise grammar because, frankly, I don't know enough to go into greater detail. That being said, I'm always eager to learn, and will always accept feedback. Again, learning is one of the reasons for this endeavor.

Since the purpose of writing this grammar is to provide a comprehensive description of the Ardusan languages, not to teach them to others, it is not intended to serve as a textbook or as a way to learn the languages. I have organized topics thematically, rather than curricularly, and I employ technical terms when they are precise, accurate, and appropriate. I have not conducted a formal analysis of the languages, but I have worked to make it as descriptive as possible.

The discussion is ordered from the smallest elements of the languages to the largest. It begins with a description of each language's place in Ardusa followed by their phonologies, it addresses morphology and the combining of words, it discusses vocabulary and derivation, and it explains syntax and discourse. The final chapter serves as a reference grammar, summarizing all of the previous chapters. There are

also several appendices describing the conceptual metaphors that organize much of the lexicons, the naming practices of the fictional speakers of these languages, several translation examples, and lexicons. Other resources include a glossary of linguistic glossing abbreviations, a bibliography, and an index.

This document uses several linguistics conventions to clarify meaning. Any reference to specific orthographic spelling is marked with angled brackets, such as ⟨hin⟩. Pronunciations are usually given phonemically, in which case they are marked with slashes, such as /hin/. Phonetic pronunciations are used only when conveying specific details like the difference between allophones, and are marked with square brackets, such as [çin]. Both phonemic and phonetic pronunciations are given using the International Phonetic Alphabet. Foreign words are always written in italics, such as *lu*. English glosses are surrounded by single quotes, such as 'and'. If a morphological gloss is provided in-line, it is surrounded by parentheses, such as (INF).

Many short examples are provided in one single line.

(1) Tavonic: *šek* /ʃek/ 'ran' (run-IND.PST.PFV)

Longer examples are usually provided with a multi-line, or interlinear, gloss. In these examples, the optional first line will indicate which language the example is in, if it is not clear from context. The next line presents the text in that language, followed by the pronunciation. After this, the text is broken into its component morphemes, and the following line provides a morpheme-by-morpheme gloss. The final line provides an English translation of the example phrase or sentence.

(2) Tavonic
Nan oko šeðo.
/nan oˈko ˈʃe.ðo/

nan=	*oko*	*š-eðo*
PL.AN.TOP=	dog	run-IND.PST.PRG

'The dogs were running.'

As shown in example 2, morpheme glosses are labeled with abbreviations in SMALL CAPS. A full list of all glossing abbreviations is given on page vii. A hyphen marks a morpheme boundary within a word that is shared between the text and its gloss, while a period marks a boundary present in only one or the other, including when a single word in the text corresponds to multiple words in its gloss. Clitics are marked with an equals sign, reduplication with a tilde, discontinuous affixes (e.g., infixes, circumfixes) with angle brackets, and morphemes that cannot be easily separated out with backslashes.

The LaTeX source code for this grammar and a copy of this PDF are available in a public GitHub repository. Undoubtedly, there will be errors in this document. If you notice any, please feel free to open an issue in the GitHub repository with a description and the location of the error.

Ian A. Cook
Minneapolis, September 8, 2018

Part I

Tavonic Language Family

1

History and Ethnography

This chapter will present a brief history of the Tavonic language family, followed by a short description of its ethnolinguistic context.

1.1 Brief History

The Tavotath (the Tavonic people) migrated to Ardusa hundreds of years ago in what they termed Year 1 of the Ardusan Era (AE). Ardusa is far from any other landmasses and is isolated from the influence of other lands and other peoples. The Tavotath landed in the warm southeastern regions of Ardusa where they first established their new home, naming this new realm *Urdeso*, a compound word meaning 'Safe Land'. Over the following centuries, the Tavotath spread westward and northward throughout the whole of Ardusa.

As the Tavotath spread, they formed several individual territories, each of which eventually developed into small kingdoms. These kingdoms constantly battled one another for power, and borders were continually shifting. Those who fled the fighting fled northward, furthering the Tavonic expansion throughout Ardusa. As the Tavotath spread farther apart and splintered, their language diverged. Two main dialects emerged, one in the north and one in the south.

After a few hundred years, one kingdom in the south emerged as dominant, conquering or allying with more and more kingdoms until, by 327 AE, the entire south of Ardusa was united under one empire. This empire enforced the usage of the language that had emerged in the south, thus forming the Alnuric language. The empire continued to push northward until it spread too thin and reached a stalemate with the allied kingdoms in the north around 371 AE. Finally, in 582 AE after a couple hundred years of relatively stable rule, the empire declined and divided again into individual territories, leaving behind six sovereign kingdoms.

While the empire was emerging in the south, the kingdoms in the north formed a loose alliance to resist its spread. The alliance managed to reach a stalemate with the empire, stopping its spread northward. The allied kingdoms together maintained the language that emerged in the north, thus forming the Redodhic language. Eventually, as the empire split in 582 AE and the northern alliance was no longer needed, the north also split into individual territories, leaving behind four sovereign kingdoms.

1.2 Ethnography

1.2.1 Demonyms and Language Names

Tavonic

The Tavotath were a tribe that migrated to Ardusa together, fleeing their previous home. The Tavonic word *tavo* /taˈvo/ means ‘person’, and so the derived word *Tavotaþ* /ta.voˈtaθ/ means ‘people’ or ‘tribe’. In other words, the Tavotath referred to themselves as the People, with *Tavonak* being the Language of the People. The Alnuric- and Redodhic-derived words, *Tevodeþ* /te.voˈdeθ/ and *Tovujiþ* /to.vuˈd͡ʒiθ/ respectively, refer to all people who descended from the original Tavotath tribe. Both Alnuric and Redodhic are Tavotath languages and part of the Tavonic language family.

Alnuric

For hundreds of years, the empire ruled in the southern region of Ardusa. The Tavonic word *unner* /unˈner/ ‘empire’ evolved into the Alnuric word *alnur* /alˈnur/. *Alnurek* /al.nuˈrek/ ‘Alnuric’ takes its name from this word. Meanwhile, the Redodhic name for the empire is *nonar* /noˈnar/, and its name for the Alnuric language is *Nonrik* /nonˈrik/. Similarly, the Alnuric and Redodhic names for the Alnuric people are *Alnureþ* /al.nuˈreθ/ and *Nonriþ* /nonˈriθ/ respectively.

Redodhic

In the north, the alliance resisted the empire’s expansion. The Tavonic word *aroltutaþ* /aˌrol.tuˈtaθ/ signifies ‘alliance’, however the alliance instead used the simpler form *arutaþ* /a.ruˈtaθ/ ‘standers’ to signify the alliance of those kingdoms standing against the empire. *Arutaþ* evolved into the Redodhic word *rejiþ* /reˈd͡ʒiθ/, and *Redoðik* /re.doˈðik/ ‘Redodhic’ takes its name from this word. The Alnuric name for the alliance is *eradeþ* /e.raˈdeθ/, and its name for the Redodhic language is *Eratþek* /e.ratˈθek/. Similarly, the Redodhic and Alnuric names for the Redodhic people are *Redoðiþ* /re.doˈðiθ/ and *Eratþeþ* /e.ratˈθeθ/ respectively.

1.2.2 Ethnology

Here will be a brief ethnological description of the Tavotath.

1.2.3 Demography

Here will be a brief demographical description of the Tavotath.

2

Phonology

This chapter will present the inventory of consonants and vowels. An observational analysis of the Tavonic languages' syllable structures and phonotactics will follow. The chapter will close with notes on syllable stress within words and a brief exploration of intonation.

2.1 Tavonic Phoneme Inventory

2.1.1 Consonants

With approximately 20 consonants, Tavonic has an "average" inventory.[1] Table 2.1 shows the full chart of consonant phonemes, along with several allophones enclosed in parentheses. Table 2.2 shows how each consonant in Tavonic is romanized.

Despite its "average" inventory of consonants, there are many more allophones that occur in the language. First, any doubled consonant is realized as a geminated (elongated) consonant.

(1) *unner* /unːer/ 'empire'

Thus, example 1 above is realized with a lengthened [nː]. A doubled ⟨r⟩ is similarly geminated, but the pronunciation changes from a flap/tap to a trill.

The remaining allophones occur due to various sound change processes, mostly by assimilation. For example, /n/ becomes velarized when it appears immediately before a velar consonant.

(2) *tavonga* [ta.voŋˈga] 'humanlike'

As discussed above, ⟨r⟩ can be pronounced as both a tap/flap [ɾ] and as a trill [r]. Additionally, when part of certain consonant clusters, it can be pronounced as an approximant [ɹ]. This primarily occurs when the ⟨r⟩ leads into a cluster or immediately follows a nasal.

(3) *frorgali* [froɹ.ˈga.li] 'to un-see'

[1] Ian Maddieson, "Consonant Inventories," in *The World Atlas of Language Structures Online*, ed. Matthew S. Dryer and Martin Haspelmath (Leipzig: Max Planck Institute for Evolutionary Anthropology, 2013), http://wals.info/chapter/1.

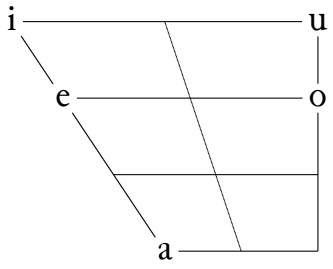
Table 2.1: Tavonic Phonetic Consonant Inventory (allophones in parentheses)

Consonants	Bilabial	Labio-dental		Dental		Alveolar		Post-alveolar		Velar	
Nasal	m						n				(ŋ)
Plosive		p	b	t	d					k	g
Fricative		f	v	θ	ð	s	z	ʃ	ʒ	x	ɣ
Flap/Tap							ɾ				
Trill							(r)				
Approximant							(ɹ)				
Lateral							l				

Table 2.2: Tavonic Consonant Romanization

Phone	Phoneme	Romanization	English	Notes
[m]	/m/	⟨m⟩	⟨m⟩	
[n]	/n/	⟨n⟩	⟨n⟩	
[ŋ]	/n/	⟨n⟩	⟨n⟩	/n/ becomes velarized before a velar consonant
[p]	/p/	⟨p⟩	⟨p⟩	
[b]	/b/	⟨b⟩	⟨b⟩	
[t]	/t/	⟨t⟩	⟨t⟩	
[d]	/d/	⟨d⟩	⟨d⟩	
[k]	/k/	⟨k⟩	⟨k⟩	
[g]	/g/	⟨g⟩	⟨g⟩	
[f]	/f/	⟨f⟩	⟨f⟩	
[v]	/v/	⟨v⟩	⟨v⟩	
[θ]	/θ/	⟨þ⟩	⟨th⟩	
[ð]	/ð/	⟨ð⟩	⟨dh⟩	
[s]	/s/	⟨s⟩	⟨s⟩	
[z]	/z/	⟨z⟩	⟨z⟩	
[ʃ]	/ʃ/	⟨š⟩	⟨sh⟩	
[ʒ]	/ʒ/	⟨ž⟩	⟨zh⟩	
[x]	/x/	⟨ǩ⟩	⟨kh⟩	
[ɣ]	/ɣ/	⟨ǧ⟩	⟨gh⟩	
[ɾ]	/r/	⟨r⟩	⟨r⟩	
[r]	/r/	⟨rr⟩	⟨rr⟩	⟨r⟩ is trilled when doubled
[ɹ]	/r/	⟨r⟩	⟨r⟩	⟨r⟩ is occasionally pronounced as an approximant when a part of a consonant cluster
[l]	/l/	⟨l⟩	⟨l⟩	

Table 2.3: Tavonic Vowel Inventory



2.1.2 Vowels

Tavonic distinguishes five vowel qualities, as shown in Table 2.3, giving it an "average" inventory.[2] This means the consonant–vowel ratio is 20:5 or 4.0, which is "average".[3] Tavonic does not distinguish long and short vowels and does not allow any diphthongs.

Note that all Tavonic vowels have a very rigid acceptable pronunciation with very little variance.

(4) a. *akrinsali* 'to rewrite' is pronounced /ak.rinˈsa.li/. ⟨i⟩ is not pronounced with a lax [ɪ] in closed syllables (i.e., /ak.rɪnˈsa.li/)

b. *tloþevem* 'permission' is pronounced /tlo.θeˈvem/. ⟨e⟩ is not pronounced with a central [ə] in unaccented syllables or an open [ɛ] in closed syllables (i.e., /tlo.θəˈvɛm/), nor is it diphthongized to [eɪ̯] (i.e., /tlo.θeˈveɪ̯m/)

c. *ǩalo* 'man' is pronounced /xaˈlo/. ⟨a⟩ is not pronounced with a raised [æ] (i.e., /xæˈlo/), a backed [ɑ] (i.e., /xɑˈlo/), or a centralized [ɜ] (i.e., /xɜˈlo/)

d. *esondi* 'arable' is pronounced /e.sonˈdi/. ⟨o⟩ is not pronounced with an open [ɔ] (i.e., [e.sɔnˈdi]), nor is it diphthongized to [oʊ̯] (i.e., /e.soʊ̯nˈdi/)

e. *frumbali* 'to misunderstand' is pronounced /frumˈba.li/. ⟨u⟩ is not pronounced with an open [ʌ] (i.e., /frʌmˈba.li/) or a centralized [ʊ] (i.e., /frʊmˈba.li/)

2.2 Tavonic Phonotactics

At the time of writing, there does not yet exist a sufficient corpus for a meaningful statistical analysis of Tavonic's phonotactics. Therefore, this section will present only a cursory observational analysis.

2.2.1 Syllable Structures

Syllables in Tavonic must contain a vowel to serve as the syllable's nucleus. Each syllable will only have at most one vowel. Syllables may also include any single consonant or one of a limited set of

[2] Ian Maddieson, "Vowel Quality Inventories," in *The World Atlas of Language Structures Online*, ed. Matthew S. Dryer and Martin Haspelmath (Leipzig: Max Planck Institute for Evolutionary Anthropology, 2013), http://wals.info/chapter/2.

[3] Ian Maddieson, "Consonant-Vowel Ratio," in *The World Atlas of Language Structures Online*, ed. Matthew S. Dryer and Martin Haspelmath (Leipzig: Max Planck Institute for Evolutionary Anthropology, 2013), http://wals.info/chapter/3.

two-consonant clusters as the onset, coda, or both.

In other words, the most complex syllable structure allowed in Tavonic is CCVCC, with restrictions on the allowable consonant clusters, giving Tavonic a "moderately complex syllable structure".[4]

V

The most basic syllable structure is simply a vowel (V). V syllables occur exclusively at the beginning of a word.

(5) a. *e* /e/ 'in' or 'on'
b. *eðer* /eˈðer/ 'pen'
c. *abom* /aˈbom/ 'two'
d. *oko* /oˈko/ 'dog'
e. *usukon* /u.suˈkon/ 'possessor'

CV

A syllable can contain a single-consonant onset. There is no restriction on which consonants may appear in the onset. This is likely the most frequent type of syllable in Tavonic.

(6) a. *ga* /ga/ 'but'
b. *lu* /lu/ 'and'
c. *mo* /mo/ 'with'
d. *ǩalo* /xaˈlo/ 'man'
e. *šeðo* /ˈʃe.ðo/ (run.PST.IND.PRG) 'was running'

VC

A syllable can contain a single-consonant coda. There is no restriction on which consonants may appear in the coda. VC syllables also occur exclusively at the beginning of a word.

(7) a. *elbi* /elˈbi/ 'egg'
b. *ablu* /abˈlu/ 'cat'
c. *ongo* /onˈgo/ 'pan'
d. *urda* /urˈda/ 'safe'

[4]Ian Maddieson, "Syllable Structure," in *The World Atlas of Language Structures Online*, ed. Matthew S. Dryer and Martin Haspelmath (Leipzig: Max Planck Institute for Evolutionary Anthropology, 2013), http://wals.info/chapter/12.

CVC

The above two syllable types can be combined by having a consonant at both the onset and coda of a syllable. This syllable type can occur anywhere, but is most common at the end of a word. This is likely the second-most frequent type of syllable in Tavonic.

(8) a. *ǩalven* /xal'ven/ '400'
b. *ablunga* /ab.lun'ga/ 'catlike'
c. *akradir* /ak.ra'dir/ 'writing implement'
d. *esonak* /e.so'nak/ 'citizen'

CCV

CCV

VCC

VCC

CCVC

CCVC

CVCC

CVCC

CCVCC

CCVCC

2.2.2 Phonological Changes

Placeholder

2.2.3 Syllable Parsing

Placeholder

2.2.4 Number of Syllables per Word

Placeholder

2.3 Tavonic Prosody

Placeholder

2.3.1 Syllable Weight

Placeholder

2.3.2 Word Stress

Placeholder

2.3.3 Intonation

Placeholder

2.4 Alnuric Phoneme Inventory

Placeholder

2.4.1 Consonants

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2.4.2 Vowels

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2.5 Alnuric Phonotactics

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2.5.1 Syllable Structures

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2.5.2 Phonological Changes

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2.5.3 Syllable Parsing

Placeholder

2.5.4 Number of Syllables per Word

Placeholder

2.6 Alnuric Prosody

Placeholder

2.6.1 Syllable Weight

Placeholder

2.6.2 Word Stress

Placeholder

2.6.3 Intonation

Placeholder

2.7 Redodhic Phoneme Inventory

Placeholder

2.7.1 Consonants

Placeholder

2.7.2 Vowels

Placeholder

2.8 Redodhic Phonotactics

Placeholder

2.8.1 Syllable Structures

Placeholder

2.8.2 Phonological Changes

Placeholder

2.8.3 Syllable Parsing

Placeholder

2.8.4 Number of Syllables per Word

Placeholder

2.9 Redodhic Prosody

Placeholder

2.9.1 Syllable Weight

Placeholder

2.9.2 Word Stress

Placeholder

2.9.3 Intonation

Placeholder

3

Morphological Typology

Now that Tavonic, Alnuric, and Redodhic's phonologies have been defined in chapter 2, this chapter will discuss the next larger unit of language: morphemes. A morpheme is the smallest meaningful unit in a language. A morpheme can be a root, or it can be another element that affects or modifies the meaning of a root. Further, a morpheme may be freestanding, or it may be bound to other morphemes to form a larger word.

The discussion will begin with a general explanation of the Tavonic family's morphological typology. Following this will be a brief summary of the various morphological processes that occur in the languages, ending with an explanation of the locus of marking.

3.1 Morphological Typology

Traditional research would show that Tavonic is typologically partially isolating and partially fusional, meaning that morphemes are often either separated into distinct words or fused together such that a single phonological unit represents several morphemes. However, according to Bickel and Nichols,

> Recent research has shown that such a scale [ranging from isolating to agglutinative to fusional to introflexive] conflates many different typological variables and incorrectly assumes that these parameters covary universally.[1] Three prominent variables involved in this are phonological fusion, formative exponence, and flexivity (i.e. allomorphy, inflectional classes).[2]

Therefore, we will examine each of these areas—phonological fusion, formative exponence, and flexivity, as well as the degree of synthesis—separately.

[1] Frans Plank, "Split Morphology: how Agglutination and Flexion Mix," *Linguistic Typology* 3 (1999): 279–340; Balthasar Bickel and Johanna Nichols, "Inflectional Morphology," in *Language Typology and Syntactic Description*, ed. Timothy Shopen, 2nd edition (Cambridge: Cambridge University Press, 2005).

[2] Balthasar Bickel and Johanna Nichols, "Fusion of Selected Inflectional Formatives," in *The World Atlas of Language Structures Online*, ed. Matthew S. Dryer and Martin Haspelmath (Leipzig: Max Planck Institute for Evolutionary Anthropology, 2013), http://wals.info/chapter/20.

3.1.1 Phonological Fusion

Tavonic's phonological formatives are partially fusional, being partially "isolating" and partially "concatenative".[3] The concatenative morphemes are phonologically bound, requiring a "host word" with which they form one single phonological word, while the isolating morphemes are "full-fledged phonological words of their own".

Verbs are almost exclusively concatenative, with tense, aspect, and mood morphemes attached directly to the verb's stem.

(1) a. *ufuli*
/u'fu.li/

uf-uli
sing-INF

'to sing'

b. *Ufunte!*
/u'fun.te/

uf-unte
sing-IMP

'Sing!'

c. *Mon ufuk.*
/'mon u'fuk/

mon *uf-uk*
IS.TOP sing-IND.PST.PFV

'I sang.'

Example 1 shows how morphemes are attached to the stem of a verb through suffixes, rather than with separate (isolating) modifying words or nonlinear ablaut or tone modifications.

Example 1c similarly shows how personal pronouns are fusional. Example 2 demonstrates further how each personal pronoun simultaneously indicates the person, number, animacy in the third person, case, and whether it is the topic.

(2) a. *mor* /mor/ 'I' (IS.ABS)

b. *þeton* /θe'ton/ 'you' (2P.ACC)

c. *ginsek* /gin'sek/ 'to it' (3PC.IN.TOP.DAT)

This concatenation appears not only in inflectional morphology, but also in derivational morphology. For example, the word *ablutik* /a.blu'tik/ 'kitten' is formed from the root noun *ablu* /a'blu/ 'cat' with a diminutive suffix attached (*ablu*-DIM). Similarly, the word *akradir* /ak.ra'dir/ 'pen' is formed from the root verb *akrali* /ak'ra.li/ 'to write' with a nominalizing suffix (*akra*-NMZ).

[3]Bickel and Nichols, "Fusion of Selected Inflectional Formatives."

Nouns, on the other hand, are exclusively isolating. All grammatical markings, including number, gender, case, and topicality, are indicated using phonologically separate prepositions.

(3) a. *No akrakon aruþ.*
/no ak.ra'kon a'ruθ/

no=	*akrakon*	*ar-uþ*
AN.SG.TOP.ABS=	writer	stand-IND.NPST.PRG

'The writer is standing.'

b. *Esokon moþes elbi šus ken botra draš.*
/e.so'kon mo,θes el'bi 'ʃus ken bot'ra 'draʃ/

∅=	*esokon*	*moþes=*	*elbi*	*šus*	*ken=*	*botra*	*dr-aš*
AN.SG.ABS=	farmer	IN.PC.TOP.ACC=	egg	3S.AN.GEN	AN.PL.DAT=	wife	give-IND.NPST.RTSP

'The farmer has given the eggs to his wife.'

Notice in example 3 how every noun is preceded by a preposition that identifies that noun's grammatical role within the sentence.

3.1.2 Formative Exponence

Tavonic has mostly polyexponential formatives, meaning that, in almost all cases, single morphemes express multiple grammatical categories each.[4] Derivational morphemes are all monoexponential while inflectional morphemes are almost exclusively polyexponential.

(4) *Nan tavotik one vi?*
/nan ta.vo'tik o'ne vi/

nan=	*tavo-tik*	*on-e*	*=vi*
AN.PL.TOP=	person-DIM	play-IND.NPST.IPFV	=INT

'Do children play?'

Example 4 includes one derivational morpheme and three inflectional morphemes attached to the roots *tavo* and *oneli*, two of which are polyexponential. The preposition *nan* is a polyexponential morpheme that identifies the preceding noun's gender (animate), number (plural), and topicality. The affix *-tik*, a diminutive that derives the word 'child' from the root 'person', is a monoexponential derivational suffix. The single-letter suffix *-e* attaches to the verb to express the mood (indicative), tense (nonpast), and aspect (imperfective). Finally, the word *vi* is a monoexponential interrogative clitic that turns the sentence into a question.

Noun prepositions can additionally encode case. In example 4, the noun *tavotik* is inferred to be in the absolutive case despite being unmarked for it. In many other situations, this grammatical case

[4]Balthasar Bickel and Johanna Nichols, "Exponence of Selected Inflectional Formatives," in *The World Atlas of Language Structures Online*, ed. Matthew S. Dryer and Martin Haspelmath (Leipzig: Max Planck Institute for Evolutionary Anthropology, 2013), http://wals.info/chapter/21.

is additionally encoded within the same polyexponential preposition. In example 3b, the word *moþes* indicates that the noun 'egg' is inanimate, paucal, the topic, and in the accusative case.

One noun preposition, *nut* has not fully cumulated, with the noun's number being still separated into a distinct segment.

(5) a. *nut-∅* /nut/ (AN.TOP.ACC-SG)
b. *nut-os* /nu'tos/ (AN.TOP.ACC-PC)
c. *nut-on* /nu'ton/ (AN.TOP.ACC-PL)

All other noun prepositions are fully cumulated and cannot be separated into their component morphemes.

(6) a. Inanimate Ergative
i. *ða* /ða/ (IN.SG.ERG)
ii. *ðes* /ðes/ (IN.PC.ERG)
iii. *dun* /dun/ (IN.PL.ERG)
b. Inanimate Topic Dative
i. *moǩ* /mox/ (IN.SG.TOP.DAT)
ii. *mekos* /me'kos/ (IN.PC.TOP.DAT)
iii. *nikun* /ni 'kun/ (IN.PL.TOP.DAT)

3.1.3 Flexivity

Tavonic nouns, adjectives, and verbs display flexivity, which means that these words are divided into separate classes that receive distinct inflectional allomorphs. On such allomorphs, otherwise identical morphemes take distinct phonological shapes.

Nouns are divided into animate and inanimate genders. These two genders determine which prepositions are used to provide the grammatical context of the noun.

(7) a. *ri bilt*
/ri 'bilt/

ri= *bilt*
AN.PC.ABS= breath

'breaths'

b. *l'eðer*
/le'ðer/

le=eðer
IN.PC.ABS=pen

'pens'

In example 7, both *bilt* and *eðer* are marked for the paucal number and the absolutive case, but because *bilt* is animate and *eðer* is inanimate, the shape of the prepositions are entirely different.

Although they are distinct, the shapes are often more closely related than in example 7. Example 8 shows the animate and inanimate forms of the plural ergative preposition; the relation between the two forms is much clearer, as only the vowel changes.

(8) a. *din bilt*
/din 'bilt/

din= *bilt*
AN.PL.ERG= breath

'breaths'

b. *dun eðer*
/dun e'ðer/

dun= *eðer*
IN.PL.ERG= pen

'pens'

Nouns do not show possessive flexivity, as there is no possessive classification.[5] There is only one method of forming a possessive relationship: using the genitive case.

Adjectives also show flexivity since they decline to match the gender of the noun they modify. Each adjective has a distinct animate and inanimate form, with animate adjectives ending in *-a*, *-i*, or *-u* and inanimate adjectives ending in *-e* or *-o*.

(9) a. *su frandi bilt*
/su fran'di 'bilt/

su= *frandi* *bilt*
AN.SG.GEN= visible.AN breath

'of the visible breath'

b. *šo frando eðer*
/ʃo fran'do e'ðer/

šo= *frando* *eðer*
IN.SG.GEN= visible.IN pen

'of the visible pen'

In example 9, the form of *frandi* changes depending on whether it is modifying an animate noun like *bilt* or an inanimate noun like *eðer*.

[5]Johanna Nichols and Balthasar Bickel, "Possessive Classification," in *The World Atlas of Language Structures Online*, ed. Matthew S. Dryer and Martin Haspelmath (Leipzig: Max Planck Institute for Evolutionary Anthropology, 2013), http://wals.info/chapter/59.

Verbs are divided into three distinct conjugation classes, each identified by the infinitive form. Class I verb infinitives end in *-ali*, class II verb infinitives end in *-eli*, and class III verb infinitives end in *-uli*.

(10) a. Class I: *bruþat-ali* /bru.θaˈta.li/ ‘to handle’ (handle-INF)
b. Class II: *š-eli* /ˈʃe.li/ ‘to run’ (run-INF)
c. Class III: *teg-uli* /teˈgu.li/ ‘to worry’ (worry-INF)

Beyond just the form of the infinitive, the verb’s class determines the entire conjugation paradigm for that verb.

(11) a. Class I: *bruþat-abe* /bru.θaˈta.be/ ‘handling’ (handle-ACT.PTCP)
b. Class II: *š-iba* /ˈʃi.ba/ ‘running’ (run-ACT.PTCP)
c. Class III: *teg-ube* /teˈgu.be/ ‘worrying’ (worry-ACT.PTCP)

As shown in example 11, the same inflection takes a different form when attached to a verb of a different class. To form the active participle, *bruþatali* becomes *bruþatabe* and *teguli* becomes *tegube*. Following this pattern, one might expect *šeli* to become **šebe*, but instead it becomes *šiba*.

3.1.4 Synthesis

As discussed in subsection 3.1.1, derivation and verb inflection occurs by attaching affixes to a stem or root, forming singular phonological words. Meanwhile, noun declension occurs using prepositions that mark the grammatical information for the noun. These prepositions are separate phonological words from the nouns themselves.

In all cases, however, inflected forms constitute singular *syntactic* words because the inflections cannot be separated or reordered at all. This means that Tavonic morphology is synthetic.[6]

Tavonic verbs normally inflect to show mood, tense, and aspect, a total of three morpheme categories per word. The maximally inflected form adds negation, a particle that is a separate phonological word but remains a part of the syntactic word of the verb, bringing Tavonic’s category-per-word ratio up to 4.[7]

(12) *Šun onek bo.*
/ˈʃun oˈnek bo/

šun	*on-ek*	*-bo*
3S.AN.TOP	play-IND.PST.PFV	-NEG

‘S/he did not play.’

[6] Balthasar Bickel and Johanna Nichols, “Inflectional Synthesis of the Verb,” in *The World Atlas of Language Structures Online*, ed. Matthew S. Dryer and Martin Haspelmath (Leipzig: Max Planck Institute for Evolutionary Anthropology, 2013), http://wals.info/chapter/22.

[7] Ibid.

3.2 Morphological Processes

Tavonic primarily makes use of suffixes and clitics to derive and inflect words. The language does not employ infixation, stem modification, or suprafixation, no prefixation has yet been identified, and reduplication only appears in wordplay and child-directed speech.

3.2.1 Suffixation

Suffixes in Tavonic apply mainly to verbs. All verbal inflections occur via the addition of suffixes, whether phonologically bound or not. This is illustrated in example 13.

(13) a. *Šona git akrağ.*
/ʃoˈna git akˈraɣ/

šona *git* *akr-ağ*
3P.AN.TOP 3S.IN.ACC write-IND.PST.RTSP

'They had written it.'

b. *Monsa ufut oþ nikis.*
/monˈsa uˈfut oθ niˈkis/

monsa *uf-ut* *oþ* *nik-is*
1PC.TOP sing-IND.NPST.PFV if be.able-SBJV.NPST.IPFV

'We will sing if we are able.'

c. *usombe akrapis*
/uˈsom.be ak.raˈpis/

us-ombe *akrapis*
hold-PASS.PTCP.IN letter

'held letter'

d. *Mi þro akrorganta.*
/mi ˈθro ak.rorˈgan.ta/

mi *þro* *akrorg-anta*
IN.SG.TOP that.MED erase-IMP

'Erase that.'

e. *Mana kantenta bo.*
/maˈna kanˈten.ta bo/

mana *kant-enta* *-bo*
1P.TOP thank-IMP -NEG

'Don't thank us.'

As discussed in subsection 3.1.4, although the particle *bo* is a separate phonological word, it functions syntactically as a suffix. This is shown in example 13e where it attaches to the verb *kantenta* to negate it.

Suffixes are also present on adjectives, though only minimally. Adjectives take one of two vowel endings to mark the gender of its referent, with animate adjectives ending in *-i*, *-a*, or *u* and inanimate adjectives ending in *-e* or *-o*.

(14) a. *ablunga* /ab.lunˈga/ (AN) vs. *ablunge* /ab.lunˈge/ (IN) 'catlike'
b. *akrandi* /ak.ranˈdi/ (AN) vs. *akrando* /ak.ranˈdo/ (IN) 'writable'
c. *bruþatla* /bru.θatˈla/ (AN) vs. *bruþatlo* /bru.θatˈlo/ (IN) 'manual'
d. *fraþru* /fraθˈru/ (AN) vs. *fraþro* /fraθˈro/ (IN) 'observant'

Suffixation also occurs regularly in derivational inflection. In fact, several derivational suffixes can be strung together to derive yet more words. Example 15 shows this process.

(15) a. *frali* /ˈfra.li/ 'to see'
b. *fravem* /fraˈvem/ 'sight'
c. *fravemitla -o* /fra.vem.itˈla/ 'visual'
d. *onaš* /oˈnaʃ/ 'rug'
e. *onašuli* /o.naˈʃu.li/ 'to place'
f. *onašinsuli* /o.na.ʃinˈsu.li/ 'to re-place'

In example 15f, the *-ins* affix may not immediately appear to be a suffix, however it should be noted that it is being attached to the end of the *stem* of the word, which is *onaš-*, prior to the verb's infinitive ending *-uli*, which is an *inflectional* suffix.

3.2.2 Cliticization

Clitics can be difficult to define in a formal way, and it is therefore worthwhile to explain how certain morphemes in Tavonic can be classified as such.

A 'clitic' is often characterized as "a 'small', prosodically weak, or non-prominent word which fails to respect normal principles of syntactic distribution because it requires a host to which it can attach phonologically".[8] Clitics are different from affixes in that they will typically "cliticize 'promiscuously' to a word of any old category, including uninflectable words which otherwise fail to take any affixes whatever",[9] whereas affixes are limited to only specific parts of speech to which they can connect.[10]

[8] Andrew Spencer and Ana Luís, "The Canonical Clitic," chap. 6 in *Canonical Morphology and Syntax*, by Dunstan Brown, Marina Chumakina, and Greville G. Corbett (2012), 123–150, ISBN: 9780199604326, accessed November 25, 2018, doi:10.1093/acprof:oso/9780199604326.001.0001, https://www.academia.edu/4379177/The_canonical_clitic_With_Ana_Lu%C3%ADs_.

[9] Ibid.

[10] Arnold M. Zwicky and Geoffrey K. Pullum, "Cliticization vs. Inflection: English N'T," *Language* 59, no. 3 (1983): 503–505, accessed November 25, 2018, https://web.stanford.edu/~zwicky/ZPCliticsInfl.pdf.

Yet, they are different from function words in that they are bound, that is they do not have the free ordering afforded to words.[11]

The primary example of clitics in Tavonic is the noun prepositions. These particles cannot appear alone, conveying solely grammatical, not lexical, information. They are not affixes because they attach to the beginning of the entire noun phrase, no matter what word comes after, rather than attaching directly to the head noun.

(16) a. *Mod nas oko fra.*
/'mod nas o'ko 'fra/

mod *nas=* *oko* *fr-a*
IS.ERG AN.PC.TOP dog see-IND.NPST.IPFV

'I see the dogs.'

b. *Mod nas urda oko fra.*
/'mod nas ur'da o'ko 'fra/

mod *nas=* *urd-a* *oko* *fr-a*
IS.ERG AN.PC.TOP protected-AN dog see-IND.NPST.IPFV

'I see the protected dogs.'

c. *Mod nas tesar urda oko fra.*
/'mod nas te'sar ur'da o'ko 'fra/

mod *nas=* *tesar* *urd-a* *oko* *fr-a*
IS.ERG AN.PC.TOP 2PC.GEN protected-AN dog see-IND.NPST.IPFV

'I see your protected dogs.'

d. *Mod nas su esokon urda oko fra.*
/'mod nas su e.so'kon ur'da o'ko 'fra/

mod *nas=* *su=* *esokon* *urd-a* *oko* *fr-a*
IS.ERG AN.PC.TOP AN.SG.GEN farmer protected-AN dog see-IND.NPST.IPFV

'I see the farmer's protected dogs.'

Notice in example 16 how the particle *nas* directly precedes the entire noun phrase, even when separated from the head noun by an adjective (16b), a pronoun (16c), and even another modifying noun and its preposition (16d).

In some cases, the noun prepositions reduce phonologically and attach to the following word. Any time a noun preposition ends with the same vowel with which the following word begins, that vowel is dropped and the preposition is attached orthographically to the following word with an apostrophe.

[11] Arnold M. Zwicky, "Clitics and Particles," *Language* 61, no. 2 (1985): 286–290, accessed November 25, 2018, http://babel.ucsc.edu/~hank/mrg.readings/zwicky1985.pdf.

(17) a. *le eðer → l'eðer* /leˈðer/ ‘pens’ (IN.PC.ABS-pen)

b. *mati inam → mat'inam* /maˈtiˈnam/ ‘location’ (IN.SG.TOP.ACC-location)

c. *no oko → n'oko* /noˈko/ ‘dog’ (AN.SG.TOP-pen)

d. *su urda ablu → s'urda ablu* /surˈda abˈlu/ ‘of the protected cat’ (AN.SG.GEN-protected-AN cat)

The other main example of cliticization is the particle *vi*. It is used to ask questions and is most often added at the end of a sentence after the verb, as shown in example 18.

(18) *No šekon tu fraþru oko usu vi?*
/no ʃeˈkon tu fraθˈru oˈko uˈsu vi/

no=	*šekon*	*tu=*	*fraþr-u*	*oko*	*us-u*	*=vi*
AN.SG.TOP=	runner	AN.SG.ACC=	observant-AN	dog	have-IND.NPST.IPFV	=INT

‘Does the runner have an observant dog?’

A speaker can, however, move the interrogative particle earlier in the sentence to focus the question on some specific element.

(19) a. *No šekon vi tu fraþru oko usu?*
/no ʃeˈkon vi tu fraθˈru oˈko uˈsu/

no=	*šekon*	*=vi*	*tu=*	*fraþr-u*	*oko*	*us-u*
AN.SG.TOP=	runner	=INT	AN.SG.ACC=	observant-AN	dog	have-IND.NPST.IPFV

‘Is it the runner who has an observant dog?’

b. *No šekon tu fraþru vi oko usu?*
/no ʃeˈkon tu fraθˈru vi oˈko uˈsu/

no=	*šekon*	*tu=*	*fraþr-u*	*=vi*	*oko*	*us-u*
AN.SG.TOP=	runner	AN.SG.ACC=	observant-AN	=INT	dog	have-IND.NPST.IPFV

‘Is it an *observant* dog the runner has?’

c. *No šekon tu fraþru oko vi usu?*
/no ʃeˈkon tu fraθˈru oˈko vi uˈsu/

no=	*šekon*	*tu=*	*fraþr-u*	*oko*	*=vi*	*us-u*
AN.SG.TOP=	runner	AN.SG.ACC=	observant-AN	dog	=INT	have-IND.NPST.IPFV

‘Is it an observant *dog* the runner has?’

3.3 Locus of Marking

Tavonic is almost exclusively dependent marking.

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Here is a reference grammar for Tavonic.

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What metaphors do the vocabulary convey?

Language is a tool. I speak *with* or *using* Tandi, rather than just speaking Tandi.

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C

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D

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